

# **CARE & MAINTENANCE GUIDE**



Providing Peace of Mind for Saskatchewan Homeowners



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# **INTRODUCTION TO THE GUIDE:**

A new home\* is a large investment – the largest investment many people ever make. All investments require safekeeping and protection. For this reason, Saskatchewan Home Warranty developed this Care & Maintenance Guide to help you protect your investment. We encourage you to take an active role in protecting your investment and safeguarding your warranty by following the advice in this Guide.

Maintenance is a part of home ownership. A home requires your attention to keep it in good working order. As with other maintenance, homeowners have the option of doing some maintenance themselves or hiring professionals for more specialized maintenance.

Today's homes are typically equipped with the newest technologies, including modern mechanical systems and appliances; therefore, some homeowners may assume that these new products require less maintenance. This is not always true. In order to keep the systems and appliances in your home operating properly, regular maintenance and servicing is important.

It is common practice to take care of minor maintenance problems as they arise, but it is also a good idea to do regular maintenance to help avoid problems. There are many easy things a homeowner can do to prevent a minor issue from becoming an expensive major repair. In addition to avoiding expensive repairs, regular maintenance is often required to preserve warranty coverage. Suggested maintenance tasks are included in the appendix of this Guide to provide a helpful Seasonal Maintenance Schedule for homeowners.

\*The term 'home' is used throughout this guide to refer to single-family homes as well as renovated homes, townhouses and units in multi-family buildings.

## **GUIDE LIMITATIONS:**

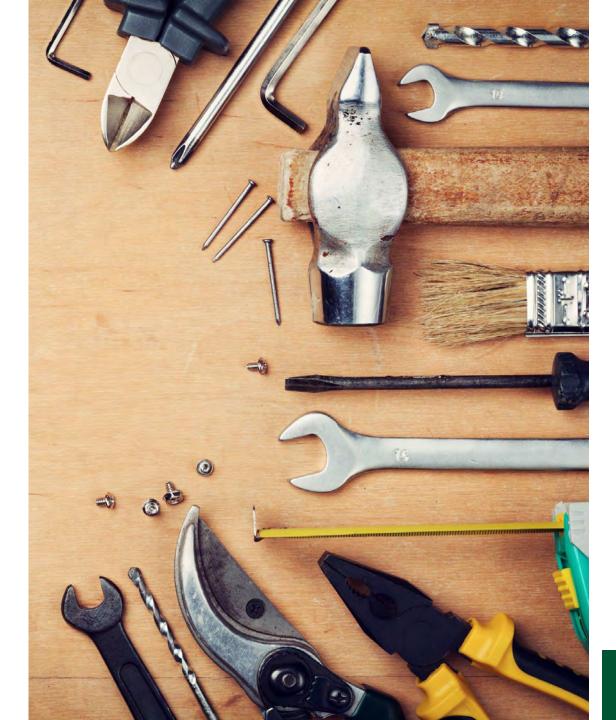
This guide is provided for information purposes only and is not a legal document, nor is it intended to provide technical or professional advice. This guide deals with common maintenance requirements and identifies potential solutions. It does not encompass all situations or all potential solutions. You must assess your own capabilities to successfully complete maintenance work or repairs suggested in the guide.

Not everything listed in this guide is covered under your home warranty. Please take the time to familiarize yourself with your Limited Home Warranty Certificate or Limited Home Renovation Warranty Certificate.

**Acknowledgements:** This guide was produced using resources from suppliers, manufacturers and industry partners.

**Warranty Coverage Obligations:** As part of your Saskatchewan Home Warranty coverages, you should have received a Limited Home Warranty Certificate or Limited Home Renovation Warranty Certificate from your Builder.

Your warranty certificate stipulates that maintenance is required to ensure warranty coverages are maintained.





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# **EXTERIOR ELEMENTS** / SITE WORK





# **SURVEY PLANS AND PINS:**

A Legal Survey Plan establishes legal boundaries and defines the extent of a person's ownership or other land rights. Survey Plans also include information about right-of-ways for utilities such as gas or power lines. A Saskatchewan Land Surveyor marks each lot in a new subdivision with an iron pin. These pins, or boundary markers, define where your property ends and where your neighbour's or municipality's property begins. These pins mark the legal boundaries of a property and provide measurements for future improvements such as garages, house additions or fences.

When considering the construction of a new fence or home addition, make sure you know where your property lines are located prior to selecting the placement of the improvement. People often assume physical features of the property are evidence of boundaries. This includes swales (depressions in the terrain that are a function of the drainage systems and can be shared between properties), power or telephone pedestals (junction boxes placed within an easement), or even fences and sheds. These physical features are not evidence of the boundary lines. Only survey pins can tell you where the actual boundaries are located. Unfortunately, survey pins are sometimes difficult to find – there may be more than one pin in the area or none at all. In addition, some pins may not relate to the homeowner's property boundaries at all, but define roads, right-of-ways or other land related measurements. Survey pins may have also been buried, destroyed during construction or moved from their original position. It is recommended that you contact a Saskatchewan Land Surveyor to correctly identify your boundaries to avoid mistakes when building on your property.

It is illegal to remove or tamper with legal survey pins. Unsuspecting landowners may find an iron pin, dig it out and throw it away thinking it is just a piece of metal leftover from construction. Do not disturb or throw away survey pins and land markers. If the survey pin is in a spot where you would like to place a fence post, you must build around it.





# **EASEMENTS & UTILITY CORRIDORS:**

An easement provides another party access to a defined section of your property. For example, access is granted to service water and drainage systems, power or telephone cable routes, or even a driveway route to an adjacent property. Easements are associated with land itself, not the landowners. This means that when land is bought or sold the easements related to that land "go with the land." The location of easements will be noted on the Real Property Report, Plan of Survey or on the Certificate of Title.

If you are considering work next to an easement (such as utility pedestals, drainage swale, roadway or property line), contact the Local Planning Department in your jurisdiction to find out what the required buffer zones are so that you know what you can and cannot do to and around the easement on your property.

If you need to dig on your property you should familiarize yourself with the locations of all underground services. Utility services on your property can be located and marked for you FREE OF CHARGE. For an appointment phone 1-866-828-4888 or visit www.sask1stcall.com

#### **Other Site Servicing Considerations**

- Do check for survey pins or water shut off valves before making changes or additions within the area.
- Do not cover the water shut off valve with concrete or asphalt.
- If you would like to pave or place concrete on your driveway, the water shut off valve must be made accessible by bringing it up to the top of the surface.
- Do not enclose gas meters. Enclosing a gas meter could result in a concentration of lethal gas that would normally be vented.

## **LOT DRAINAGE:**

Once ownership of the property has been assumed, the onus for maintaining proper drainage becomes solely the homeowner's responsibility. This responsibility goes beyond just managing watershed within your own property, but also includes ensuring that adjacent homes and yards are not affected by the water being drained from your property. When completing final grading, placement of top soils and or landscaping begins, be sure to maintain the already established drainage pattern. If in doubt prior to landscape work being undertaken, check with your local municipal planning department.

Please refer to the Saskatchewan Home Warranty Guide to Understanding and Maintaining Appropriate Lot Drainage (Link)

# **EXTERIOR DECKS, STEPS & RAILINGS:**

Exterior decks, verandahs and patios are often subjected to extreme weather conditions, including unrelenting sun, rain and snow. Even with regular seasonal care, a deck will not match the lifespan of the home and will need to be replaced. Check your deck each season for deteriorated components. Exposure to sun, rain and snow can cause fasteners to pop and boards to warp, crack, split or rot. Check your deck, steps and handrails for areas that may need to be repaired or replaced.

One of the best ways to prolong the lifespan of your deck is through regular maintenance and cleaning. Sweep your deck regularly, shovel snow off deck surfaces, and clear away any puddles, dirt and leaves to reduce the amount of moisture that comes into contact with your deck.

Refer to the manufacturer's maintenance guide for the specific material used for your decking.

# CONCRETE



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## **EXTERIOR CONCRETE:**

Exterior concrete surfaces such as driveways and sidewalks are not covered under the warranty.

The most common causes of concrete flaking, spalling and/or pitting are associated with weathering and freeze/ thaw cycles. Salts and de-icers applied for ice melting or from melting snow from a parked vehicle can stress concrete surfaces and cause spalling and pitting.

Homeowners can reduce the effect of de-icing and road salt by applying a breathable surface sealer. Sealer treatment and re-treatment should be carried out according to the manufacturers' directions.

Frost penetration and/or moisture under concrete may cause sidewalks and/or driveways to heave or settle. Affected areas usually return to their original position in more temperate weather.

Your driveway was designed and constructed for use by non-commercial vehicles and is not intended for large vehicles such as moving vans, service or delivery trucks.

# **CONCRETE BASEMENTS:**

Moisture is always present in the soil around your home. The amount of moisture may temporarily increase during the spring when the snow melts and during heavy or prolonged rains. Refer to Saskatchewan Home Warranty's Guide to Understanding and Maintaining Appropriate Lot Drainage (Link)

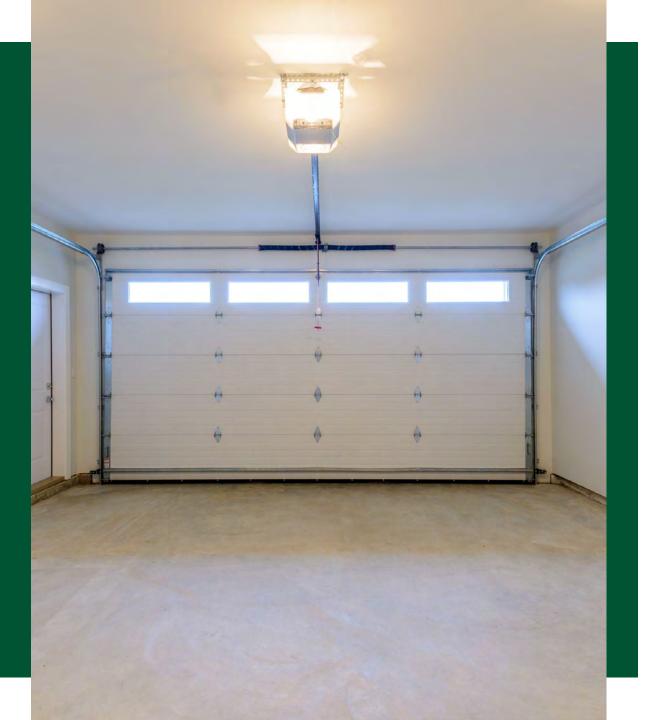
#### Water present in or below ground surface is managed by:

- Coating walls that are below grade with materials such as a spray applied bitumen and/or specialized drainage mats that can resist the movement of water from the wall exterior;
- Collecting and draining water that comes in contact with the exterior wall below grade with a weeping tile system. Refer to Chapter 13: Plumbing, Sump Pump

Unless there is an unusual amount of water accumulating against the wall (such as in a severe rainstorm or grade sloped toward the house due to settlement) water should not enter the basement. However, because concrete is a porous material and coatings are not continuous under the footing where the wall meets the foundation, small amounts of water may be transferred through the concrete and show up as dampness on the inside of the concrete wall.

# **CONCRETE BASEMENT FLOORS:**

Concrete basement floors may experience some minor cracking. Minor cracks on a basement floor slab do not prevent the slab from performing its function. The rate of the minor cracking depends on the amount of moisture under the slab, the relative humidity in the basement, and the porosity of the concrete.



### **GARAGES:**

#### **Garage Floors:**

It is common for some cracking to occur in a concrete garage slab floor. Builders may cut control joints or imbed plastic strips (ie: Zip Strip) into the slab to help control floor cracking. Hairline cracks on a garage floor slab do not prevent the floor slab from performing its function. Once the garage floor has fully cured, it is extremely important that you treat it with a concrete sealer to help protect it and prevent staining.

In winter months, de-icing salts that accumulate on your vehicle can melt off onto the concrete floor of your garage and cause spalling if new concrete is not sealed. Moisture and de-icing salts can also melt and travel towards your garage door, where it may freeze and thaw causing the upper layer of concrete by the garage door to pop up. Ensure proper sealing and drainage of moisture from your garage.

# MASONRY & MANUFACTURED STONE

Masonry refers to construction using bricks, natural stone, or one of the many types of manufactured stone products available on the market.

Hairline cracks between mortar and bricks or stones are common and have little effect on the wall's ability to manage water. However, loose bricks or stones and missing mortar should be repaired.





## EFFLORESCENCE

Efflorescence is a mineral salt deposit (usually white in colour) that may develop on the surface of masonry or similar surfaces. All masonry materials are susceptible to efflorescence. The degree of efflorescence varies depending on the type and colour of the cement materials, weather conditions, and the availability of water and salt sources.

Efflorescence is usually temporary because the salt source is very limited. Generally speaking, efflorescence will usually occur only during the first year or two after construction. It tends to lessen with the passage of time as the materials "purge" themselves of salts. These salts can usually be removed by lightly scrubbing the affected area with a soft bristled brush.

#### **General Maintenance & Other Considerations:**

- Do not allow snow to accumulate against masonry and manufactured stone surfaces;
- Do not direct sprinklers towards masonry and manufactured stone walls;
- Do not cover masonry weep holes with built-up flower beds;
- Do not use de-icing salts on horizontal surfaces (i.e., sidewalks and driveways) near masonry and manufactured stone surfaces;

# CARPENTRY & FRAMING



## **THE HOUSE FRAME:**

During the first cold-weather season, new construction will experience natural drying and a certain amount of shrinkage will occur. Wood expands and shrinks when the humidity changes. Minor shrinkage is normal for all wood construction and does not affect the structural integrity of your home. In many cases the gaps or openings caused by shrinkage can be attributed to temperature extremes on either side of your home's walls (i.e., interior and exterior walls). These gaps and cracks (referred to as Thermal Bowing) become less noticeable when more temperate weather returns.

You may notice the effects of humidity changes and shrinkage with the appearance of gaps, cracks and squeaks on the interior components of your home.

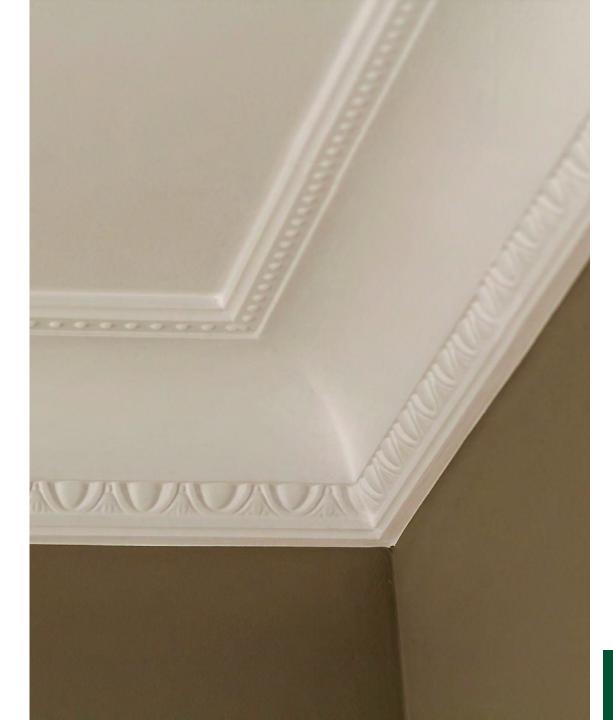
# **MAIN SUPPORT BEAMS & TELEPOST ADJUSTMENTS:**

In most homes, adjustable steel teleposts are used to support the main beams in the basement. These posts transfer your home's weight to the foundation of the home. Once a year, check the teleposts to make sure they are sufficiently supporting the beam. If you notice a gap, adjust as required.

If you plan to complete an unfinished basement in your new home, consider framing that allows a small space or gap to allow for upward movement of the floor slab. Ensure there is access to the teleposts for adjustments. Adjusting of teleposts is the responsibility of the homeowner.

## **TRUSS MOVEMENT:**

The ceiling of your home is attached to the lower chords of wooden trusses, which tend to shrink and expand seasonally when temperatures and humidity changes. During colder months, you may notice the effects of these truss movements when a slight gap appears between the interior walls of your home and the ceilings. This is commonly referred to as Truss Uplift. As the trusses expand and contract, the ceiling can lift slightly off the walls of your home. The ceiling will then move back into place during warmer months. This is not uncommon. One solution to address truss uplift is to install decorative crown moldings to minimize the cosmetic effect of seasonal truss movements.





# CABINETS/ COUNTERTOPS & FINISH CARPENTRY



### **CABINETS**

Most cabinets are made from medium density fiberboard (MDF) or melamine particle board. Cabinet doors and drawer fronts are often made of finer woods such as birch, cherry, oak, maple, alder, and mahogany. Cabinets with door panels will have the panel situated inside a perimeter frame to reduce stress on the door and diminish the possibility of the panel cracking. The panels may shrink and expand due to changing environmental factors (i.e., humidity and temperature). This is not uncommon.

With normal use, cabinet doors can move out of alignment. This can result in cabinet doors binding or rubbing against one another. Within the first year of purchasing your home, the builder is responsible for a one-time warranty adjustment and then the cabinet door adjustments become the homeowners' maintenance responsibility. Most of the new hardware used to hang doors or drawer slides are fully adjustable.

Woods such as oak, birch and mahogany are sensitive to extreme changes in the moisture content of the air (i.e., humidity). Cabinet doors can deform and warp if the air in the house is very dry or if water or steam comes into contact with the cabinet face. Spills and kitchen splatters should be cleaned up quickly. Warping due to interior conditions in a home is not considered to be a warranty issue.

#### **General Maintenance & Other Considerations:**

- Follow the manufacturers' recommendations for cleaning and use products designed for the type of wood and finish used to construct your cabinets.
- Melamine surfaces can be cleaned using a damp soapy cloth. Care for melamine surfaces is similar to the cleaning procedures used for laminate countertop surfaces (see beside).
- Cabinets, drawer handles, knobs and hardware will become loose over time and will need to be tightened. This is considered part of normal homeowner maintenance.





### **COUNTERTOPS:**

Countertops are made from a variety of materials such as laminate, tiles, natural stone, engineered stone, concrete and metal. While no countertop is indestructible, with proper care, your countertops will provide you with many years of durability.

#### Laminate Countertops:

Everyday care and maintenance of your laminate countertops can be done with a damp, soapy cloth. For stubborn stains or spills (i.e., nail polish) contact the manufacturer of the laminate for special removal instructions. Never set a hot pot or pan directly on the surface of the laminate. Do not use your countertop as a cutting board as knives can scratch your countertop.

It is important to ensure that countertops are kept free of standing water at joints and where the counter meets the backsplash along the wall. It is also important to repair chipped or broken laminate countertops or edges so that liquids cannot seep into the particle board base.

#### **Tile Countertops:**

Everyday care and maintenance of your tile countertops can be done with a damp, soapy cloth.

Avoid impacts to tile counters as the tiles may crack or chip.



#### **Natural Stone Countertops:**

Natural stone countertops should be cleaned with a soft cloth and mild soap. Avoid abrasive cleaners. Consult the manufacturer for specific care instructions based on the type of stone your counters are made of.

Acid from citrus fruits can etch some natural stone surfaces and may require professional services to restore. Always use a cutting board and clean up fruit juices immediately.

#### **Quartz & other Engineered Stone Countertops:**

Engineered stone countertops are composed of natural minerals such as granite, marble and quartz. Engineered stone countertops vary in their resistance to scratches and stains. Refer to manufacturer's specifications for regular cleaning and maintenance.

#### **Concrete Countertops:**

Concrete countertops are porous and will stain if left unsealed and in their natural state. Sealers are applied to increase water and stain resistance; however, the concrete may be stained or the seal may be compromised in some circumstances.

Protect your concrete countertops by cleaning with a soft cloth and mild soap, and re-applying sealers as per the instructions provided by the manufacturer.

#### **Metal Countertops:**

Metal countertops are susceptible to damage from scratching and nicks. These damages are less visible on low-sheen or sanded metal surfaces. Refer to manufacturer's recommendations for cleaning procedures.

# **DOORS & WINDOWS**



### **EXTERIOR DOORS:**

#### **Exterior Entry Doors:**

Weather-stripping provides a flexible seal around doors to prevent unwanted air from moving in or out of your home. Exterior doors typically have two types of weather-stripping. The first is a compressible, molded strip of foam or rubber that is set against the frame towards the outside of the door. The opening part of the door rests against this weather-stripping when the door is closed, forming an air and water seal. The second type of weather-stripping is located at the bottom of the door and is called a "sweep" or "threshold." Usually, this type of а weather-stripping consists of a metal or vinyl piece that holds a flexible fin or a row of thin fins that sweep across the doorsill as the door is closed. Door sweeps can be purchased in a variety of types and depths.

Weather-stripping will wear out over time. Each fall check your door's weather-stripping and/or sweeps for wear and replace them if necessary. Exterior doorsills are adjustable so that you can raise the level of the sill to the door sweep to provide an effective seal. Refer to manufacturer's specifications for adjustment instructions.

If you have an attached garage, the door between your garage and home comes equipped with a self-closing device.

The door between your home and garage should be checked each season to ensure the weather-stripping is in good working order. This weather-stripping helps prevent garage fumes from entering the home.

#### **Exterior Sliding Doors:**

Sliding doors with or without screen doors are commonly used for deck and patio entrances. Normal use can cause rollers or sliders to wear and may cause the latches to move out of alignment. In addition, dirt in the bottom track can interfere with the smooth operation of a sliding door.

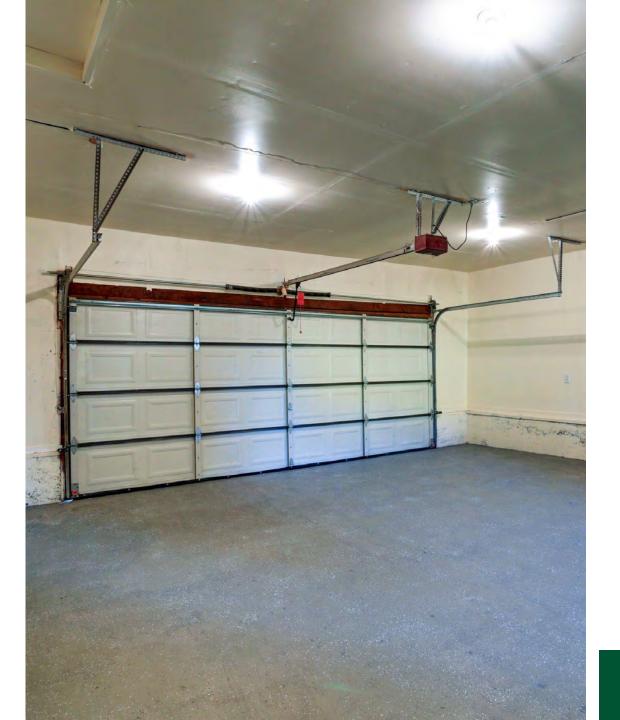
To keep a sliding door working properly, clean and lubricate the tracks and hardware as part of your regular seasonal maintenance. If a screen door is loose on the track, check to see if it has been warped by impact (i.e., pets or children pushing against the screen). If so, the screen door will likely need to be adjusted or replaced. If the door slides on wheels there may be an adjustment screw in the top or the side of the bottom rail that can be adjusted to help fix the problem.

#### **Overhead Garage Doors:**

Garage door surfaces require only a light cleaning to maintain them.

Once every few years, the hinges of your garage door should be lubricated. Perimeter weather-stripping should also be examined each fall and replaced if necessary. Overhead garage doors often use weight compensation springs to offset the weight of the door. These springs store considerable force and can easily inflict critical injuries. Do not adjust the weight compensation springs.

Most overhead garage doors come equipped with a door opener. Door openers require periodic maintenance specific to the make and model. You should be familiar with the function and safety features of your garage door opener. In the event of a power outage it is particularly important that you know how to disconnect the overhead door from the track. On most models, a red handle on a short rope allows you to dislodge a pin, allowing you to guide open and close the door. Your garage door opener guide will include instructions on how to re-establish the connection. It is a good idea to review this procedure before a power outage actually occurs.



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# **INTERIOR DOORS:**

#### **Interior Passage Doors:**

Wood and wood composite doors are made of natural wood fibre veneers or wood composite panels over a frame and are not designed to be as durable as exterior doors. There is usually a generous gap below each interior door to facilitate air movement from room to room when the door is closed.

Interior doors can be affected by the humidity within a home. A home with a low or high humidity may cause the veneer on an interior door to shrink or expand. In extreme instances, the veneer may delaminate and separate from the supporting frame or shrink and split. Once this has happened the door is difficult to repair. It is essential to maintain appropriate humidity levels in your home to prevent this from occurring.

#### **Interior Bifold Doors:**

Bifold doors (often used for closets) are anchored by a pin that fits into a bracket attached to the closet frame on the floor. They also have a bracket at the top that moves along a track. As the sliding bracket wears, it can cause the door to stick and bind. Everyday use can loosen the top bracket or move the anchor pin out of place in the bottom bracket. The top brackets contain a set-screw that can be loosened so that the bracket can be adjusted. If the bracket slide or pin wears out, it can be replaced.

If the door height is not properly adjusted so that the door is raised firmly into the top track, the door may come off the track. Using a pair of pliers, unscrew the pin in the bottom bracket to push the door up, firmly anchoring it back into the track. The bottom pin can also be adjusted back and forth or up and down to re-align the doors.



### WINDOWS:

Homes are generally built with PVC windows. However, other options include metal clad, wood frame, fibreglass, etc. Each window type should be maintained according to manufacturer's instructions.

#### Window Weather-stripping:

The weather-stripping on your windows prevents air leakage from the parts of the window that move (i.e., open and close).

On windows that open outwards with a crank (casement or awning windows), the weather-stripping is usually a compressible, molded strip of foam or rubber set against the frame towards the outside of the window. The opening part of the window rests against the weather-stripping when the window is closed, forming an airtight and watertight seal. On sliding windows, the weather-stripping is usually a flexible v-strip or brush/bristle set between the track and the moveable window at the point where the stationary portion of the window meets the sliding portion. Some windows have a felt-type of weather-stripping that can gather at one edge, creating an air gap at the opposite end of the window.

Weather-stripping that has lost its resiliency does not provide an effective air or water seal and should be replaced. Weather-stripping between the stationary and moving parts of the window should be checked regularly, repositioned and replaced when necessary.



#### **Potential Water Leakage:**

Windows will leak if they are not closed properly or if the weather-stripping has become worn out or damaged. Windows can also leak when the 'drain ports' are plugged. When windows do leak, typically the water will pool along the interior window casing and on windowsills. If the water is not cleaned up, it can lead to staining on the sills, casing and walls and may even begin to deteriorate.

Window drain ports help water and moisture to escape through the bottom of the window. On some sliding or casement/awning windows, these ports are located on the outside of the window at the bottom of the windowsill. The opening is often capped and allows water caught in behind the weather-stripping or in the window frame or seal to drain to the outside of the home. These ports must be kept clear of any debris so that water can drain properly. Your windows are designed to withstand a certain level of wind-driven rain; however, during unusually heavy wind-driven rainstorms, some leaking may occur.

#### **Condensation, Frost & Ice on Windows:**

Condensation may appear on your window at different times depending on the humidity (the amount of water vapour in the air) and the temperature inside your home and at the surface of the window. Condensation usually appears on windows before any other surface because windows contain the least amount of insulation, are part of your home's exterior wall, and react quickly to temperature changes inside and outside.

You can control condensation by reducing the amount of moisture (or humidity) inside your home when outside temperatures drop and the window surface becomes cool.

Many everyday activities add moisture to the air in your home, including cooking, showering and doing the laundry. Other household items that add moisture to the air in your home include plants, fish tanks and humidifiers.



#### **Reducing Condensation:**

There are many ways to reduce condensation and control the moisture content in your home. The following tips can help you reduce the amount of moisture in your home and condensation on your windows:

- Vent moist air outside and bring fresh dry air inside (i.e., bathroom fans and kitchen range hoods) to remove high concentrations of moisture.
- Run your home's ventilation system continuously or as part of a timed circulation mode.
- Run the furnace fan continuously during periods of extreme cold to evenly distribute heat throughout your home.
- Keep window drapes or blinds open or partially open during cold weather (especially at night) so that indoor air can move along the window to ...

to decrease the amount of condensation that collects on the window (closed drapes and blinds restrict air flow near windows).

- Keep air and heating vents located near windows uncovered. The movement of warm air along the window surface reduces the potential for condensation to build up.
- Make sure air and heating vents are deflecting the movement of air towards the window by adjusting the direction of the vent.

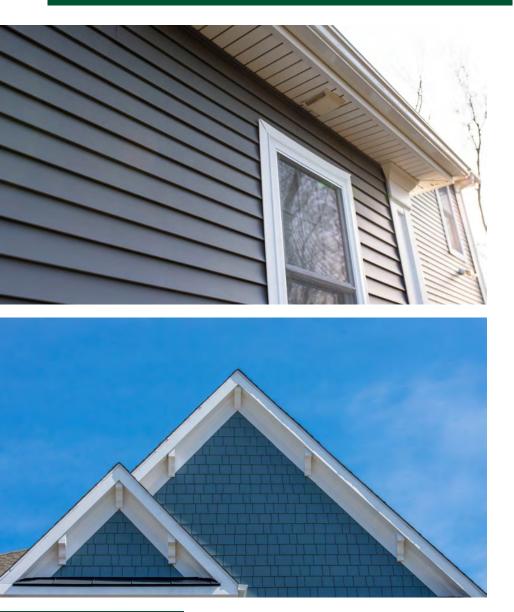
#### **Condensation Between Sealed Window Panes:**

When window seals fail the glass unit in the frame will need to be replaced because the window will continue to show condensation and will have lost its insulating ability. Contact your window manufacturer or a company that specializes in window repair and replacement for advice on the manufacturer's' warranty.



# **EXTERIOR FINISHES**





# **VINYL SIDING:**

Vinyl siding is generally a maintenance-free exterior finish that can be washed occasionally with a mild detergent and a garden hose to remove dust. Do not use a power-washer to clean vinyl siding because the pressure can force water behind the siding and cause water to leak into the wall of your home.

### WOOD OR WOOD COMPOSITE SIDING AND TRIM:

Wood or wood composite siding and trim may require new primer and paint periodically. Exterior walls that face south and west will experience the most weathering. Where wood siding pieces join or where they butt up against trim (such as at a window), exterior sealant should be checked for shrinkage and gaps that may allow wind and moisture into wall cavities.

To apply new sealant, first remove any defective caulking and replace it with a bead of a high-quality sealant. Some silicone sealants are paintable – read sealant labels, directions and guidelines carefully to determine what type of sealant will work best for your needs.

### **CEMENT BOARD SIDING:**

# **STUCCO (CEMENTOUS AND ACRYLIC):**

Cement board siding is made from a mixture of cement and wood fibers. This type of siding comes in planks, shingles and panels. They have a painted finish and will need to be re-painted over time. The length of time depends on the colour chosen, exposure to sun, driving wind and rain. Consult your manufacturer before repainting cement board siding to discuss preparation refinishing options.

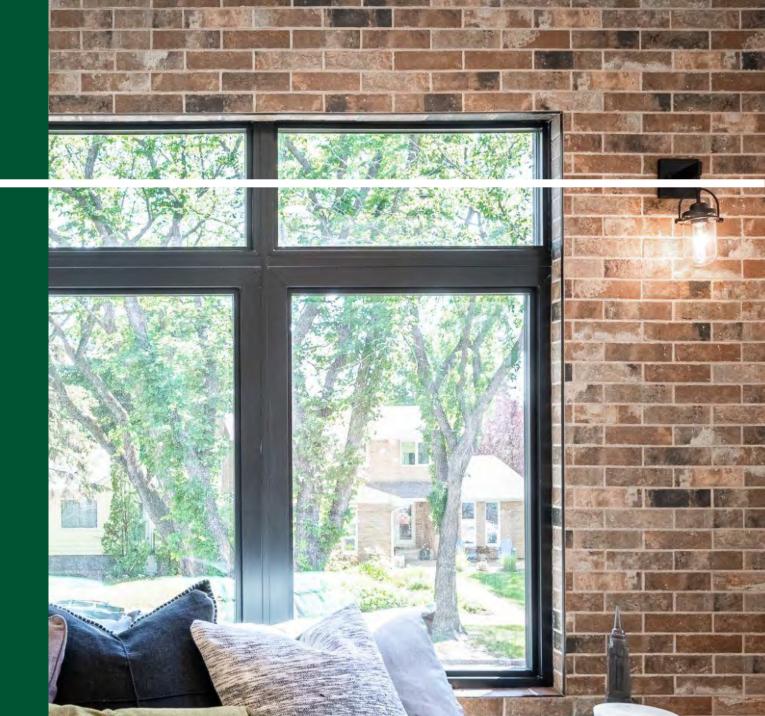


Cementous stucco is a porous material that is commonly used to finish the exterior of new homes. Minor cracking (also known as "hairline cracks") may appear in the topcoat of the stucco over time – this is normal and will be most noticeable on smooth finish coats.

Within the first year of owning your home, you may notice salt deposits on your stucco. These salt deposits (also known as "efflorescence") with exposure to moisture (rain, snow or lawn watering) bring out the natural salts contained in the stucco that have not had a chance to bond in the material. These salts can usually be removed by lightly scrubbing the affected area with a soft bristled brush. For more information and a detailed explanation of "efflorescence", see (Chapter 3: Masonry and Manufactured Stone, Efflorescence) Stucco is porous and water will eventually make its way behind the stucco wall where it can accumulate and leak into your walls. Avoid exposing your stucco walls to unnecessary moisture or extreme water pressure.

Acrylic stucco is a non-porous elastomeric material that is commonly used to finish the exterior of new home. Refer to manufacturer suggested maintenance. Do not wash your stucco with a pressure washer and do not let lawn sprinklers saturate the walls.

# **INTERIOR FINISHES**



### **PAINT:**

Painted walls can be cleaned with a mild soap and water. Do not use abrasive scrub pads to remove scuffs as they can dull or scratch the surface. Painted walls take time to cure (refer to manufacturer for curing times) and should not be cleaned unless they have been given enough time to cure completely.

### WALL COVERINGS:

The ability of wall coverings to adhere sufficiently to the drywall may be affected in rooms or homes where high humidity is present (i.e., bathrooms and kitchens). The high level of moisture can soften the glue used to adhere the wall coverings (i.e., wall paper) to the wall, causing the covering to peel. Proper ventilation, especially in kitchens and bathrooms can help prevent peeling.

### **CLEAR FINISHES:**

The use of some household cleaners, abrasives, soaps and wood conditioners may contribute to discolouration and premature deterioration of clear finishes. Most applied finishes will fade over time and with exposure to sunlight.

The durability of clear finishes on wood depends on the wood substrate and the moisture balance in the wood. Humidity levels that are too low, too high, or that fluctuate often, can cause cracks in clear finishes as the wood expands and contracts.









## **INTERIOR SEALANTS & GROUTS:**

Sealants are flexible materials that are placed where two surfaces meet to seal joints. The purpose of the "bead" of sealant is to help prevent water from finding its way behind water resistant materials and damaging the less resistant materials behind the joint. To protect water susceptible materials, sealant should be applied in a continuous, unbroken line.

Sealants are often visible at the joints between countertops and backsplashes, or where tile, walls and floors meet up with the bathtub. Over time, with cleaning, or through natural expansion and contraction of the materials, the sealant bead may crack or separate from one or both sides of a joint.

When checking the condition of sealed joints in your home, look for discolouration or soft spots. If you notice any damage or wearing, repair the sealant joints as soon as possible.

Sealants types are specifically formulated for kitchens, bathrooms and other appliances.

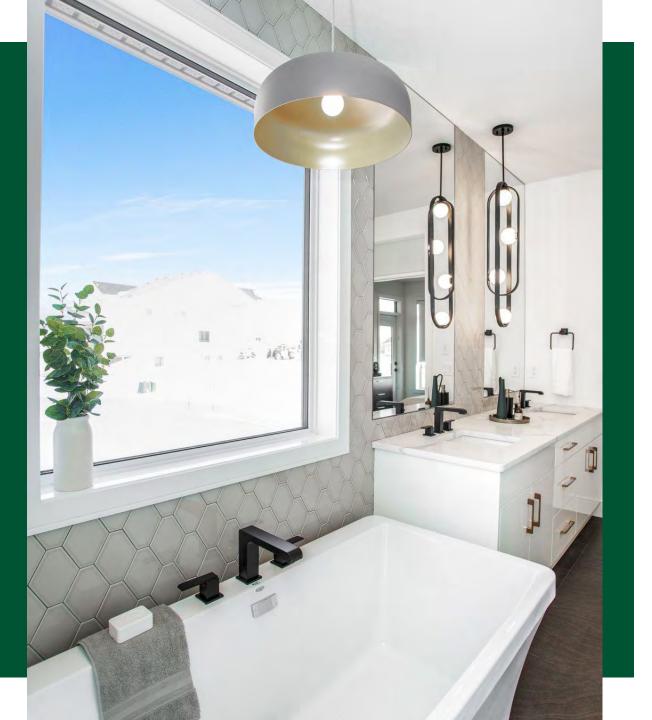
Read sealant tubes carefully for information on appropriate uses and suggested applications.

If water has penetrated behind the sealants:

- Remove all or part of the old sealant bead.
- Clean and dry the area.
- Replace any damaged materials.
- Re-apply the appropriate type of sealant to the joints.

After the first year warranty period, the maintenance and repair of the sealant is the responsibility of the homeowner.

Grout is mixture of fine sand and cement that forms a thin mortar and is used to fill the joints between wall or floor tiles. Manufacturers can add ingredients to create specific characteristics in grout such as colour or texture.

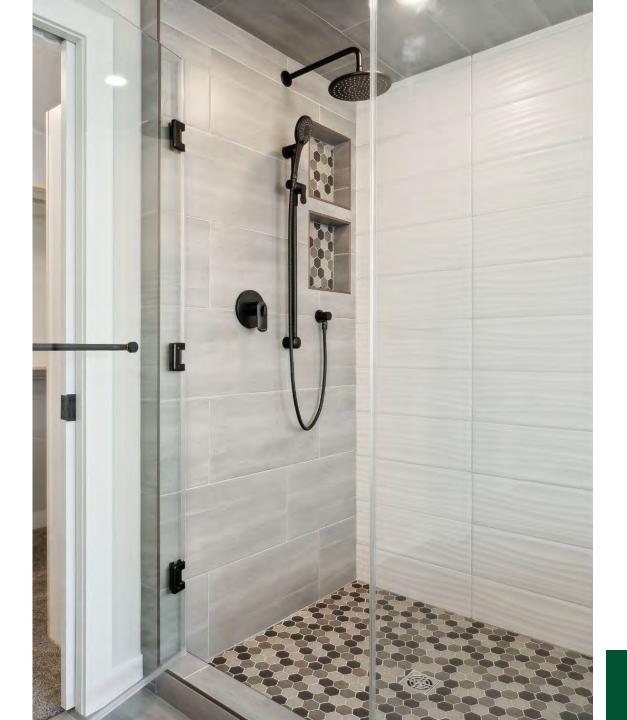


Typically, grout is porous and can stain. It is important to seal grouts. Check the manufacturer's specifications for general maintenance instructions. Maintaining this seal can greatly reduce discolouration. Sealers can affect the appearance of the grout by bringing out the natural colour and can help minimize moisture absorption and staining. Before applying grout sealer, identify the type of tile used and refer to the manufacturer's specifications for sealer. Different tile materials have different absorption characteristics which affect the look and ability to clean the tiles after sealer is applied.

Grout can easily become discoloured (especially lighter shades) by routine activities. Even something as simple as washing a tile floor can cause grout to discolour over time. There are a variety of cleaners and sealers available on the market to restore and maintain the grout. Consult your tile manufacturer for cleaning instructions and sealant application recommendations. Grout joints or caulk joints between ceramic tiles and adjacent surfaces (i.e., around bathtub and shower enclosures) may deteriorate over time under normal use and should be inspected routinely.

If a water leak is allowed to develop behind a tub or shower, the leak can soften or swell the substrate that the tiles are attached to, causing the tiles to break loose. If the grout is cracked, repair it and then re-seal it. If the caulking is failing, remove and clean the substrate then replace the caulking bead. If there is no apparent break in the grout or the caulk, clean the tiles and the grout lines and re-apply a sealer.

After the first year warranty period, the maintenance and repair of grout is the responsibility of the homeowner.



## DRYWALL





## **DRYWALL:**

Drywall is made of gypsum plaster that is pressed between two sheets of paper. These wallboards are most commonly used inside homes to make interior walls and ceilings. The sheets of drywall are attached to your home's framing using drywall nails or screws and finished with a plaster-like joint compound (also known as "drywall mud") that is used to seal joints and screws/nails.

A wood-framed home can shrink vertically due to natural drying out process, adding substantial forces on virtually any rigid building component in the home including drywall. A minor drywall crack can easily be remedied with tape, mud, primed and then re-painted.

Screw/nail pops are caused when wood shrinks and expands, forcing the screws/nails holding the gypsum to work their way through the wallboard. This results in a bump in the drywall as the screw/nail forces its way through the drywall. These screw/nail pops typically appear at the upper edge of a wall or at a truss line on a ceiling.

Screw/nail pops can be repaired by replacing the nail/screw that has bulged or screwing/nailing it in further. The hole is then filled in with joint compound, primed and re-painted.

## FLOORING

There are a number of different flooring options available on the market. The proper care and maintenance for your particular flooring depends on the type that has been installed in your home



#### **VINYL FLOORING:**

Vinyl flooring (otherwise known as "Resilient Flooring") refers to a family of plastic flooring that is comfortable to walk on and offers impact absorption and durability. Vinyl flooring is available in a variety of colours, textures and sizes.

#### **General Maintenance**

Vinyl or resilient flooring can be cleaned with a damp mop, lukewarm water and a mild soap or detergent. Harsh cleansers can cause fading, discolouration and may even make some materials hard and brittle. Avoid abrasive cleansers as these can scratch vinyl flooring. Stubborn scuffs can usually be removed with a damp cloth and some effort.

Where vinyl floor tiles have been installed, use a limited amount of water. Excessive water may seep between tiles, flooring joints and where the flooring meets baseboards and trim. Uplifted edges or corners should be repaired immediately to prevent water from seeping under the flooring and increasing the amount of lifted flooring. Refer to manufacturer for further maintenance and repair guidelines.

Resilient flooring is soft and susceptible to dents or depressions from heavy furniture. Usually the impressions will restore themselves when the pressure point has been lifted. These dents can be reduced with the use of floor protectors (felt coaster) that help distribute the weight over a larger surface area.

Resilient flooring is subject to the same fading when exposed to constant and direct sunlight. Window coverings will reduce this effect.

Some materials are incompatible with resilient flooring and can cause yellowing or discolouration. Prolonged use of latex-backed carpets, oven cleaners, hair sprays, and foods can cause this reaction to occur.

### **HARDWOOD FLOORING:**

The term hardwood does not necessarily relate to the impact resistance of the wood. Most hardwoods are applied directly to the floorboards; however, engineered hardwoods are often installed over a plywood substrate. Plywood substrates add stability and increase resistance to shrinkage.

Both hardwood and engineered hardwood floors use real wood for the cosmetic surface of the floor. Generally, solid strips of hardwood flooring are installed in a linear pattern. Each piece of wood in a hardwood floor is unique – grain structure, knots, dark and light patches add character, warmth and charm to the hardwood flooring. Even in choice and select grades of hardwoods, these variations will exist.

Hardwood flooring is highly susceptible to changes in indoor humidity. The first two years are especially critical for wood flooring, while the wood normalizes to climate conditions.

Hardwood floor manufacturers recommend certain humidity levels be maintained to minimize cupping and crowning. This recommendation may be unrealistic in colder winter climates without experiencing condensation on exterior components of the home (i.e., windows). The amount of humidity maintained in your home must be balanced to provide your family with comfort, minimize condensation as well as maintain your hardwood floor. Excess humidity must be controlled through reduction and ventilation, while excessively dry conditions may result in cracks between the strips of hardwood and must be addressed by adding humidity to the home.

Hardwood flooring may make noises resembling "cracks" or "pops" as it expands and contracts. These noises do not happen often and should not be cause for alarm. Often times, exotic woods with extreme hardness and stability will pop and crack as they adjust to their new environment.



#### **Cupping and Crowning of Hardwood Boards:**

When wood absorbs moisture from the air or gives up moisture to the air, the wood fibres will expand, stretch or shrink. This will happen faster at the edges of the boards than in the middle of the boards and can cause cupping, crowning and separation to occur.

Cupping usually occurs when the unfinished side of the flooring is exposed to excess moisture. This can cause the edges of the wood boards to swell and rise higher than the center of the boards. The moisture may come from a water leak or originate from a freshly poured basement/crawl space slab. If excess moisture is causing cupping, identify the source, remedy the problem, and then allow the flooring to reacclimatize to the new drier environment (this may take an entire heating season). After the floor dries to normal conditions, the flooring should flatten.

Cupping can also be caused when the flooring acclimatizes to an area that has higher moisture content than the moisture content of the wood at installation. This type of cupping is generally permanent and changes little with the seasons. Ensure seasonally proper and consistent humidity is maintained throughout the year.

Crowning occurs when the wood flooring loses some of its moisture, shrinks on the underside and flattens leaving the edges of the strips lower than the center of the board. Most often this happens after a floor is sanded where cupping has occurred.

The upturned outer edges are sanded off and become slightly thinner than the middle of the boards. If these boards later dry and flatten to their original position, the thin edges recede, leaving the top of boards lower than the centers.

In some cases, a slight cupping or crown can be a seasonal occurrence and the issue will diminish over time. If the cupping or crowning is constant in a particular piece of wood, it can usually be replaced to fix the problem.



#### **Hardwood Flooring and Radiant Heat**

Wood flooring applied with radiant heating underneath will be more susceptible to cracks between the strips of wood.

#### **General Maintenance**

Hardwood floors can be vacuumed using a soft head attachment. A power head (beater bar) should not be used on hardwood floors. A damp cloth or mop can be used to clean floors followed by a dry cloth – never leave standing water on the surface of a hardwood floor.

Corrosive solutions, chlorine cleaners or abrasives will dull the finish of a hardwood floor. Use only cleaners recommended by the manufacturer of the hardwood flooring.

Direct sunlight can fade hardwood flooring. Close curtains or apply window films to filter the light and reduce the fading effects of sunlight on hardwood floors.



To a degree, the durability of your wood floors depends on how well they have been protected from the abrasive effects of dirt (especially sand). A protective runner in hallways, in front of kitchen sinks, and in areas where foot traffic is heaviest can minimize wear patterns.

For more information on hardwood flooring, visit the National Wood Flooring Association's website at www.woodfloors.org.

#### **LAMINATE FLOORING:**

Laminate flooring is composed of a top wear layer, a pattern layer and one-two very dense, rigid layers that provide impact resistance and connection points for the flooring system. These layers consist of an engineered wood product and are susceptible to swelling when exposed to moisture. Most new laminates include some type of moisture sealant to protect against moisture penetration. Although it is often designed to look like hardwood flooring, it is also available in finishes that resemble ceramic tile and resilient flooring patterns.

While laminate flooring is generally very hard wearing, it can still be damaged. If chipped, laminate floors cannot be sanded and refinished as solid hardwood flooring can be.

Water should never be allowed to stand on laminate flooring because laminate flooring layers contain manufactured wood products. Wood in any form is always subject to swelling, stretching and shrinkage when exposed to high levels of humidity or fluids. If your laminate flooring has swelled due to exposure to water, contact the supplier to arrange for a professional repair. Laminates are installed in such a way that they can accommodate expansion. Often referred to as 'floating floors', deflection can sometimes be felt when walking across them. This is normal.

#### **General Maintenance:**

Laminate floors are designed to be relatively maintenance free. You may sweep, vacuum or use a damp mop with water and a cleaning product approved by the manufacturer. Do not use abrasive or harsh cleaners or scouring pads on your laminate floors. Wax, polish and lacquers should not be used on laminate floors. Contact the manufacturer for recommendations on removal of stains. Never use a steam cleaner on a laminate floor.

### **CARPETS:**

The specific durability and performance of the carpets in your home will be determined by the height, density, backing and type of fibers that make up your carpets.

Carpets can stretch due to high heat or humidity and may lift along a room perimeter if the tack strip is no longer holding the carpet backing adequately. In most cases, the carpet can be re-stretched and re-attached. Care should be exercised when cleaning carpets as a carpet ripple may appear in the middle of a room if heavy furniture has been moved across carpet that is wet. In either of these situations, a professional carpet installer should be contacted to fix the carpet.

Stains may appear as dark or greyish lines on carpet along walls or stairways, around vents, and under doors. This is known as "filtration soiling" and is caused by airflow over and through the carpet that allows fine, airborne particles to settle on the carpet surface. This type of soiling, while sometimes permanent, requires special treatment for effective removal. Contact a carpet cleaning professional for assistance.

Smoke and particles from burning candles, using fireplaces or vehicle emissions from an attached garage can deposit dark particles that will stain the carpet as they are circulated throughout your home via your heating system. These particles will settle onto carpet fibers and stain carpet surfaces. These stains may be most visible around the registers of your home.







#### **General Maintenance**

Clean carpets will last you years longer than dirty carpets. This is because dirt and sand may compress and damage carpet fibers. Remove spots and spills immediately to prevent them from setting into your carpet.

#### When cleaning up a wet spill on you carpet:

- Pretest any spot removal cleaners on a hidden area of your carpet to ensure the solution will not damage the fibers or the carpet colour.
- Apply a small amount of the selected cleaner to a white cloth and blot never scrub when cleaning a carpet spill.
- Work from the edges of the spill to the centre to prevent the spill from spreading.
- Rinse the affected area thoroughly with clear water after the spill has been removed.
- Blot with a dry cloth until all of the solution and moisture has been removed.

For oil-based stains such as ink, grease, nail polish, tar or wax, contact a cleaning professional. Never use bleach on a carpet stain because it will damage your carpet's colour.

Seasonal carpet cleaning should be done to remove oils, embedded dirt and renew your carpets.



## ROOFING

When installed properly, the roof of your home should provide you with many years of good service. Asphalt shingles are the most common type of roofing materials, but alternatives such as tile, concrete, wood, rubber and metal are also used.



### **ASPHALT SHINGLES:**

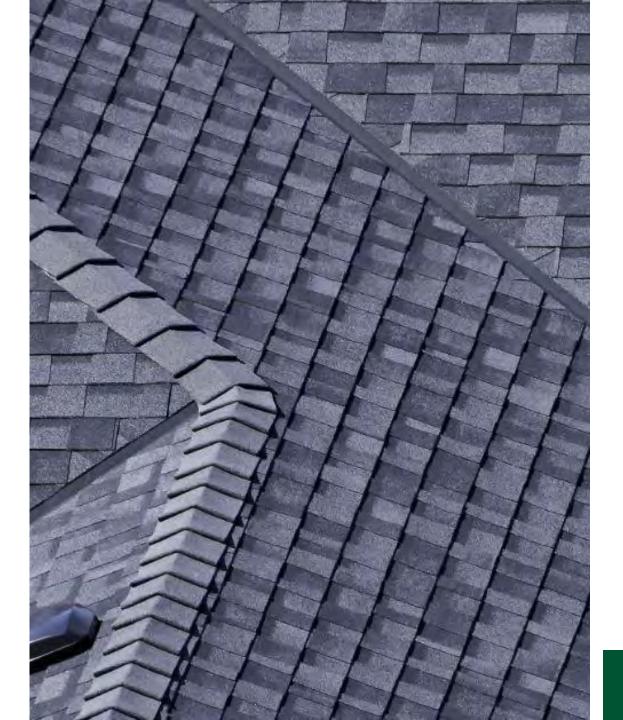
Asphalt shingles are the most common type of roofing material because they are relatively inexpensive, durable and easy to install and repair. Slight differences in the shade and colour of individual shingles is normal, even in shingles supplied by the same manufacturer. Asphalt shingles will fade over time however it will not affect the durability of the product

#### **General Maintenance:**

The top surface of asphalt shingles contains protective granules that can easily be damaged by being walked upon. This is particularly true on warmer days when shingles are softer.

Check your roof for loose, broken or missing shingles seasonally and following heavy windstorms. Maintenance repairs should be made as soon as possible to prevent water from entering your home.

A roof can also be damaged when equipment such as satellite dishes, solar panels etc. are installed. Make sure screws, nails and attachments are properly sealed to prevent leaks and avoid damaging shingles.



## FIREPLACES



## **NATURAL GAS OR PROPANE FIREPLACES:**

Generally speaking, gas fireplaces operate in a manner that is similar to natural gas furnaces: each requires homeowners to exercise caution and operational awareness. Most natural gas fireplaces pull combustion air from the outside through an intake or inlet vent. These vents should never be obstructed. It is important to note that unlike wood burning fireplaces, conventional gas fireplaces have their own air intake and exhaust paths, so there is no damper to open and close. Fireplaces and other open flame appliances should never be left unattended when in operation. Ensure you familiarize yourself with the operating guide for your particular fireplace before use.

#### Important

If you smell gas in your home:

- Do not turn on any electric switches (i.e., lights)
- Do exit your home immediately leave the door open behind you
- Do contact your natural gas supplier to advise them of your natural gas leak

#### **Curing New Fireplaces**

Materials found on the outer surfaces of a new fireplace, such as paint, sealants, lubricating oils and gasket adhesives, can produce odours and small amounts of carbon monoxide the first few times the fireplace is used. The process of burning off this material in a new fireplace is called "curing" or "burning in". Curing of your fireplace may take up to 5 or 6 hours before the process is complete. Make sure your home is well ventilated during the curing period.

#### **General Maintenance**

Your natural gas or propane fireplace is equipped with a thermopile – an electronic device that converts thermal energy into electrical energy within the fireplace. It is possible for the thermopile sensors to fail after several years. If this problem persists you will most likely require a new sensor. You may wish to call a service technician to repair the thermopile sensor.

## PLUMBING

The plumbing system in your home consists of copper or plastic drain piping and water delivery piping and the fixtures (i.e., toilets, tubs, showers, sinks and faucets) that connect to these piping systems.



#### **PLUMBING DRAINS:**

Most of the drain fixtures in your home will feature a water filled "P" trap. This trap holds water, which acts as a seal to prevent sewer gases from entering your home. If sinks, bathtubs and floor drains have not been used for an extended period of time it is possible that the water seal will have evaporated. The seal can easily be re-established by pouring a few cups of water down the drain.

#### **General Maintenance:**

There are many ways to keep your home's plumbing lines free of debris and lessening the likelihood of blockage:

- Do not dispose of fat, oil, wax, grease or any type of sediment into the drains or toilets
- Do not dispose of flammable, noxious or dangerous materials into drains or toilets
- Do clean drain traps (i.e., shower drain traps) as required

### **PLUMBING SUPPLY LINES:**

Several problems can arise within your home's plumbing supply lines. It is important for the homeowner to quickly identify each issue as it arises so the problem can be resolved and to prevent potential damage.

If a leak is detected in a water supply line, the water supply to the home or affected area should be turned off immediately to mitigate potential damage. Water leaks can create safety hazards around electrical outlets and wiring, and can pool in unseen areas causing damage.



### **TOILETS**:

Toilets installed in homes today use less water to flush waste than older models and are more sensitive to the amount of waste. More waste generally requires more water to be delivered to the toilet bowl for a flush to successfully empty all the contents down the drain.

The following tips may be useful when operating low-flow toilets.

- For a more effective flush, wait until the tank has completely filled before flushing a second time.
- Mineral and bacteria deposits may reduce the performance of a toilet over time. Regular use of toilet cleaner may help minimize mineral and bacterial buildups.
- Often a poorly draining toilet is due to a partial blockage in the drain and not the toilet. If your toilet has become partially blocked, try using a plunger to break up the blockage or help move it through the drain. If the problem persists, contact a professional plumber.

#### **CONTINUOUSLY RUNNING TOILETS:**

The most common concern with toilets arises when they run continuously. This may be caused by:

- The flapper seal has worn out and needs to be replaced
- The flush valve is being kept open by a poorly adjusted flush button

A recurring sewer gas smell could indicate that the wax seal between the base of the drain and the underside of the toilet has failed. Wax seals are available at any hardware store but they do require some familiarity with plumbing to install.



## SINKS, FAUCETS, TUBS AND SHOWERS:

The resistance of plumbing fixtures to scratches, chips, stains and fading varies depending on the composition of the fixture. Always follow the manufacturer's recommendations for cleaning and maintaining these surfaces. Do not use abrasive cleaners and exercise care as hard surfaces that are dropped on fixtures or surfaces will chip or dent most materials.

Refer to Chapter 8: Interior Finishes for maintenance of sealants & grouts

Most new faucets are manufactured using a cartridge assembly design that reduces dripping and reduces routine maintenance (compared to older faucets that used less effective rubber washers to reduce dripping). Faucets can become dull if cleaned with abrasive cleansers. Faucets or showerheads can develop leaks over time from mineral deposits or wear of the components. If this occurs, contact the manufacturer to find out if the fixture can be cleaned or if a replacement part exists for your particular brand and model of fixture. Contact a professional plumbing service provider if repairs are required.

- Do not use harsh or abrasive cleaners
- Do not attempt to repair your faucet, toilet or other parts of your plumbing systems if you do not have the proper tools, skills or knowledge to do so. Damages made while attempting to repair plumbing systems can make issues much worse and may void your warranty.

#### **FLOOR DRAINS:**

## WATER HEATERS:

Basement floor drains are typically located near the water heater and furnace. They provide a drainage path for water spilled on the basement floor and in some cases drain away water that condenses.

Floor drains are designed with a trap (or water seal) that prevents sewer gas from entering the basement. It is possible for the water in a basement floor drain trap to evaporate. This can result in sewer odours in your home. Once every few months, or if you smell sewer gas, pour water down the drain to re-establish the water seal.



Typically, there are two types of water heaters: storage tank and tankless (on demand) systems.

A storage tank water heater can be electric, gas-fired or indirectly fired through a boiler system. The controls for most storage tank water heaters are located at the base of the tank. These controls are used to adjust the temperature, shut down or turn on your hot water tank. Every tank is also equipped with a pressure relief valve safety feature located at the top of the tank. It is designed to open and relieve pressure if the water pressure in the tank exceeds its rated working pressure.

A tankless, or on demand system will be engaged as soon as a hot tap is turned on. The controls for a tankless system should be on the face of the unit.

#### **General Maintenance:**

If your water heater stops producing hot water, do check the breaker panel

- Do replace the anode rod (if applicable) according to the manufacturer's recommendations
- Do flush your hot water tank in accordance with the manufacturer's directions to prevent sediment from accumulating at the bottom of your hot water tank
- Do not tamper with your tank's pressure relief valve.
- Do refer to manufacturer's recommendations for general maintenance of your specific water heating system.



### **SUMP PUMP:**

A sump pump is a small pump installed in the lowest part of a basement or crawlspace. The weeping tile installed around the perimeter of the foundation drains into the sump pit and is pumped out as required. This system works to keep the area under the building dry and to protect the basement from flooding.

**Refer to Chapter 2: Concrete Basements** 

## **OUTSIDE HOSE CONNECTIONS:**

Your home has hose connections located on the exterior of the home. The valve is connected to the shut-off valve by a shaft that may be 12 inches or more in length, located on the inside of the home where it is warmer. When the handle of the tap is turned to the off position it closes the valve in the wall and any water between the shut-off valve and the tap will drain out upon closing. If a hose is still attached to the outside tap, this water may not be able to drain out. Always disconnect the hose from the tap before the temperatures drop below freezing at night.

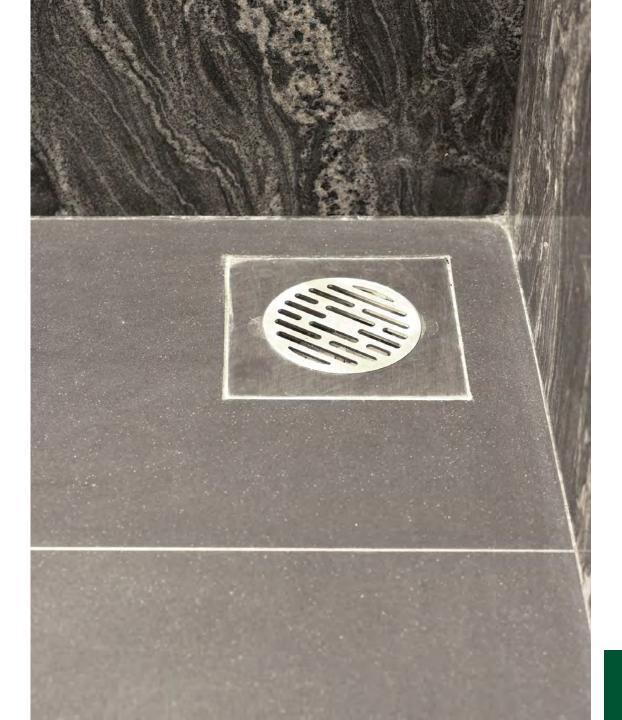
### **PRIVATE SEWAGE TREATMENT** SYSTEMS:

If you have an on-site private sewage treatment system (i.e., you live in a rural area or on an acreage) it is very important that you understand how it works and know the maintenance procedures for your particular system. A faulty sewage treatment system creates health hazards and contaminates the environment. Private sewage treatment systems may require regular servicing by a professional.

Make sure that you familiarize yourself with instructions and maintenance requirements for your particular sewage treatment system.

#### **Maintenance and Other Considerations**

- Do read the operations and maintenance guide and familiarize yourself with your specific private sewage system
- Do check with your local municipality for rules, regulations and bylaws
- Do not park heavy construction equipment near or on top of the septic tank and disposal system
- Do not allow traffic on the system during the winter months

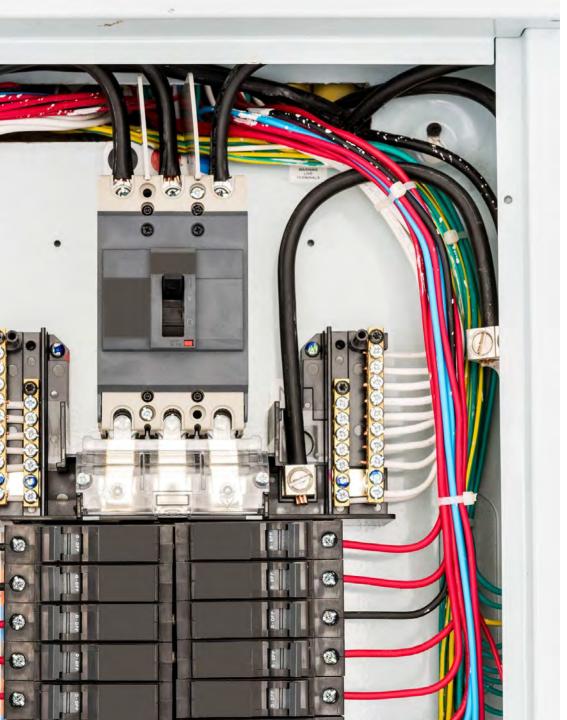


## ELECTRICAL

(A)

The heart of your home's electrical system is the main electrical panel, which contains a number of circuit breakers. Normal circuit breakers protect the wiring in your house. Arc Fault Circuit Interrupters prevent fires caused by loose or broken wires and Ground Fault Interrupters protect you personally from an electric shock. Though uncommon, issues may arise within your home's electrical systems. A general understanding of your home's circuit breakers may help you prevent problems in the future.





## **CIRCUIT BREAKERS:**

Circuit breakers automatically turn off the flow of electricity at the electrical panel when too much current is being drawn through them (commonly known as "tripping the breaker"). The circuit breaker shuts off electrical current that otherwise could result in a fire and/ or personal injury. Once the electrical issue is fixed, the breaker can be reset and power restored.

It is a good idea to familiarize yourself with the electrical panel and know which breakers control what electrical areas of your home. Most electrical panels feature a chart of how each breaker has been assigned by the electrician who installed the system.

When an electrical system is facing a potential circuit overload, it responds by shutting off the electrical power. Frequent 'tripping' of the circuit breakers may also indicate that the circuit is overloaded or the breaker itself is faulty. If the power outage is the result of a short circuit, as opposed to appliance overload, an electrician should be contacted to make repairs.

## **ARC FAULT CIRCUIT INTERRUPTERS:**

Traditional circuit breakers are primarily designed to protect the wires behind the walls as well as the switches and outlets they are connected to. These circuits will trip when an excessive amount of electricity passes through the circuit causing a heat build-up within the breaker.

Arc Fault Circuit Interrupters (AFCIs), on the other hand, are designed to detect "electrical arcs" caused by broken or cut wires.

Bedrooms are more susceptible to these types of electrical problems. As a result, the use of AFCIs in bedrooms is now mandatory.



## **GROUND FAULT INTERRUPTERS:**

A ground fault circuit interrupter (GFIs or ground fault interrupter) is an automatic device that offers personal protection against electrical shock. GFIs are installed wherever there is the potential for contact between a person and an electrical appliance near moisture. They are typically located on outlets placed near kitchen sinks, laundry rooms, bathrooms, exterior plugs, swimming pools, saunas or hot tubs.

A GFI circuit works by sensing the difference between the current entering an appliance and the current exiting the appliance. If the difference exceeds even a specified amount, it will shut down the flow of current in a fraction of a second. Similar to an Arc-Fault Circuit Interrupter, a GFI protection circuit can also be integrated into a breaker at the main electrical panel. One GFI can be wired to protect several electrical outlets on the same circuit. The circuit breaker GFI serves a dual purpose - not only will it shut off electricity in the event of a "ground-fault" but it will also trip when a short circuit or an overload occurs.

If you have lost the power to a standard outlet, it may be due to a tripped GFI further up the circuit line. In this case, check for faulty light bulbs, electrical cords or electrical appliances plugged into a GFI outlet or on a circuit protected by a GFI circuit breaker. If you have reoccurring electrical problems, contact an electrician.

## **CARBON MONOXIDE DETECTORS:**

#### **Maintenance and Other Considerations**

GFIs should be tested once a month using the "Test" and "Reset" buttons located between the plug receptacles.

- Plug a light into the outlet with the light on.
- Press the "Test" button. The power should be immediately cut and the "Reset" button will pop outward.
- To reset the circuit simply press the "Reset" button. Power should be immediately restored.



Carbon monoxide is a common by-product of burning natural gas, gasoline, and solid fuels (i.e., wood and pellets). If properly installed, maintained, and operated, your burning appliances should produce little carbon monoxide; however, when improperly vented (i.e., if the exhaust/intake vent becomes blocked) or when oxygen is restricted from reaching the gas burner, carbon monoxide will be produced and can rise quickly. Ensure your family knows what the carbon monoxide alarm sounds like and review emergency exit procedures regularly.

Carbon monoxide detectors are different than smoke detectors and are used to detect abnormally high levels of carbon monoxide gas (carbon monoxide is invisible and odourless). Read the guide of your carbon monoxide detector carefully to familiarize yourself with its operation.

Most builders will install a carbon monoxide detector/smoke alarm combination unit.

#### **General Maintenance**

- Do test your carbon monoxide detectors each month by pressing the "Test" button.
- Do replace the batteries in your carbon monoxide detectors if applicable
- Do vacuum or dust your carbon monoxide detectors regularly
- Do check the expiry date on your carbon monoxide detectors



## **SMOKE DETECTORS:**

Smoke detectors are mandatory requirements in all residential homes according to the National Building Code.

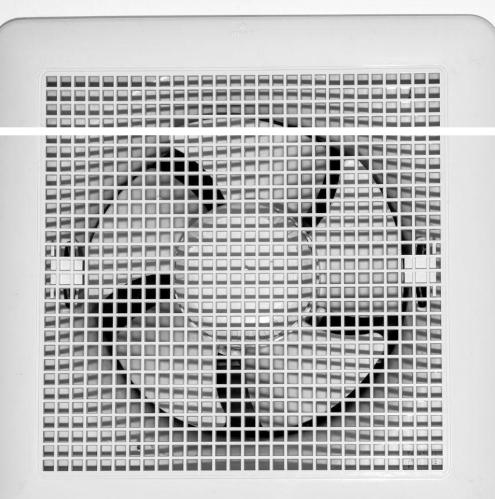
Every member of your family should be familiar with the emergency exit procedures for your home. Make sure each member of your family knows what the smoke detector alarms sound like and review and practice emergency exit procedures twice a year.

#### **General Maintenance**

- Do test your smoke detectors each month by pressing the "Test" button.
- Do replace the batteries in your smoke detectors if applicable
- Do vacuum or dust your smoke detectors regularly
- Do check the expiry date on your smoke detector

## INTERIOR CLIMATE CONTROL

Interior climate control refers to the heating, cooling, ventilation and humidity that are required to keep a house comfortable for the occupants.



## **HEATING AND COOLING SYSTEMS:**

Most heating systems are "forced air" systems where the air is heated and distributed via the ducting system attached to the furnace. Other heating systems include "hydronic" systems where water is heated and circulated to either a radiator set into forced air ducting, to radiators located on walls, or through piping placed in or under floors.

Cooling systems operate in a similar fashion to that of a refrigerator. Liquid is circulated through piping where part of the liquid is cooled. Air is blown across the cooled areas of the piping system and the cool air is then distributed through the house. It is usually distributed through the same ducting that supplies your home with heat.

The system installed is designed for the specific size of the home. The builder and/or installer have tested the heating and cooling system to ensure that it maintains a comfortable interior climate for your home;

however, the following includes a list of some common causes of inadequate heat or cooling within a home:

**Obstructed Vents** – Check for obstructions by lifting the register off the floor and looking down into the duct with a flashlight. Remove anything that could be obstructing the airflow. Exercise caution as ductwork may have exposed sharp edges.

**Dampers** – If an area of your home is too cool or too warm, ensure the registers are fully open by adjusting the dampers to limit or increase the airflow, especially those near the thermostat.

**Air Filter** – Obstructed air filters can also limit airflow from the furnace to the ducts. Inspect and clean, or replace the furnace air filter on a regular basis. **A/C Condensor** – The efficiency of the cooling system can be affected by dirt or debris on the condensor for the cooling unit. Consult your owner's guide for the cooling system for directions on cleaning the unit.

#### **AIR LEAKAGE:**

Weather-stripping and Gaskets.

Refer to Chapter 6: Doors and Windows

Drafts around pipes and flues can be reduced with the use of caulking or expanding foams.

#### **VENTILATION:**

Ventilation in the home serves three major purposes:

- To ensure there is fresh air for residents of the home;
- To remove odours, excess humidity and pollutants from the air inside the home;
- To provide intake air to balance air that is being exhausted out of the home. This balance is important to ensure that moisture generated in the home is not forced into the walls or that gases moving out of exhaust vents or chimneys are not pulled back into the home.

#### Maintenance and Other Considerations

**Windows** are the simplest ventilation system in homes. Windows are effective for removing odours and moisture from kitchens and bathrooms (not desirable during winter months).

**Intake Vents** in homes with a forced air heating system bring fresh air into the home from an intake vent, each time the furnace runs.

**Exhaust Fans** in some homes are linked to the operation of a furnace fan. This provides balance between the air coming into the home and the air being exhausted out of the home. Exhaust fans and furnace exhaust fan ventilation systems require some regular maintenance such as ensuring the filters stay clean and any outdoor intake vents are clear of obstructions. **Balanced Ventilation Systems** (sometimes referred to as **HRV** = Heat Recovery Ventilator) are installed in new homes to ensure there is a balance between intake and exhaust of air, airborne pollutants and moisture. These are usually box-like units that contain filters, a motor and ducting leading to kitchen, bathrooms, laundry room, etc. Balanced ventilation systems are designed to warm incoming air with some of the heat that would otherwise be lost to exhaust air. The filters in these units and the screeens on the intake and exhaust ducting need to be checked regularly to ensure the units function properly.



## FANS:

Many different types of fans are used throughout the home to assist with household ventilation.

#### **Kitchen Exhaust / Range Hoods**

Kitchen exhaust fans are an important part of your home's ventilation system. Range hoods remove odours from your home, improve indoor air quality and help to reduce airborne moisture caused by cooking. Some kitchen range hood fans are interconnected with the operation of the furnace fan while others operate independently. Some are also combined with an over-the-range microwave unit. Range hood filters should be kept clean to provide quiet and efficient operation. Refer to the manufacturers' guide for instructions when replacing range hood filters.

#### **Kitchen or Bath Fans**

Kitchen and bath ventilation fans can be indirectly open to outside air and contain a damper to limit the back-flow of cold air or can be connected as part of the HRV system (see above Balanced Ventilation Systems). The damper of a kitchen or bath fan (non-HRV system) is balanced to allow exhaust air to escape freely when the fan is turned on and falls back into the closed position when the fan is turned off. Over time, these exhaust fans will accumulate dust and air borne debris that can impair fan efficiency, obstruct the damper and create excess noise. The fan is connected to ductwork that ends with a screen at an outside hood. The fan and the screen at the hood end of the vent should be checked regularly and cleaned of debris to ensure proper operation.



#### **Ceiling Fans**

Ceiling fans are effective for helping move air in the home and can be useful when heating or cooling the home. Ceiling fans should be installed so that they operate smoothly. If they are vibrating or shaking, check for these potential issues:

Ensure the blades have not come loose from the body of the fan. If they have, tighten the connection between the blades and the fan body.

Ensure the blades are not bent or cracked. If a blade is bent or damaged, contact the manufacturer for a replacement.

Ceiling fan blades that accumulate debris may become unbalanced over time. Keep the blades clean and free of dust and debris.

If the fan is not securely anchored in place, it may begin to wobble and vibrate. Ensure the screws that secure the ceiling fan box to the ceiling are snug.

## **ATTIC VENTILATION:**

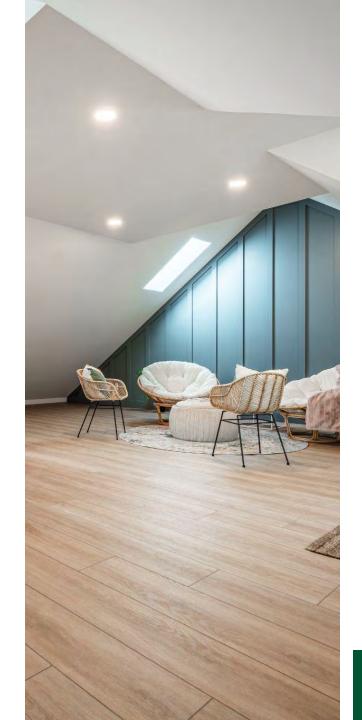
Attic ventilation is separate from home ventilation. Attic ventilation serves two important purposes. First, attic ventilation removes moisture that may find its way into the attic from the living space through penetrations in the ceiling vapour barrier (i.e., through gaps around plumbing stacks, bathroom fans and attic hatches). Second, attic ventilation removes heat from the attic space that can reduce the life of your home's shingles.

The distribution and number of attic vents in your home will have been calculated according to the Building Code. There are a number of different types and methods of attic ventilation, including the following:

- A flat metal or plastic vent located on the roof near the peak;
- A round vent with a rotating top section;
- A ridge vent of continuous stripping located along the peak or ridge of the roof;
- A gable end vent on the enclosed attic wall located at the end of the trusses

Passive roof vents perform their function in all seasons and are generally maintenance-free. In homes with complex roof designs and numerous attic spaces a powered fan unit may be used as part of the ventilation system. These fan units will require occasional motor maintenance.

Under unusually high wind conditions, even properly installed roof vents may not be able to stop some moisture from entering the attic space. In most situations, this moisture will evaporate without any staining or leaking into the interior of the home. Ensure roof vents are kept clear of snow in winter.





## SEASONAL MAINTENANCE

The maintenance tasks outlined in the following section include suggested regular and seasonal maintenance tips. Following these maintenance guidelines can help ensure the proper functioning of the many components of your new home. Some of the tips below may not apply to your home based on your home's systems, products and appliances.



## **SEASONAL MAINTENANCE: WINTER (DECEMBER, JANUARY, FEBRUARY)**

- Keep driveways, sidewalks, verandas and decks clear of ice/snow
- Monitor gas meters, gas appliance vents, exhaust vents and basement windows for snow/ice build up
- Check electrical cords, plugs and outlets for all indoor and outdoor seasonal lights for fire safety
- Ensure sump pump is operating properly and discharging water away from the foundation
- Change furnace filter & clean Heat Recovery Ventilator (HRV) filters if applicable
- Monitor home's humidity and condensation (ie: condensation on windows); avoid excessively high humidity
- levels. Use a dehumidifier to maintain appropriate humidity levels, if necessary
- Clean HRV intake hood located on exterior of home if applicable
- Run water through plumbing fixtures that are not used regularly to ensure that there is water in the trap
- Test fire and smoke detectors

## **SEASONAL MAINTENANCE: SPRING (MARCH, APRIL, MAY)**

- Check for soil settlement at the foundation; fill where necessary to maintain positive slope for water to drain away from the foundation
- Inspect private sewage system (if applicable)
- Inspect the roof and associated exterior finishes and repair if necessary
- Check eavestroughs and downspouts for loose joints; clear obstructions and ensure water flows away from your foundation
- Check for and seal off any holes in exterior cladding that could be an entry point for insects and small pests
- Inspect deck for required maintenance (if applicable)
- Ensure sump pump is operating properly and discharging water away from the foundation
- Check the tele-posts to make sure they are sufficiently supporting the beam. If you notice a gap, adjust as required.
- Change furnace filter and clean Heat Recovery Ventilator (HRV) filters, over the range hood filter (if applicable)
- Clean and service fireplaces and chimneys
- Monitor home's humidity and condensation; avoid excessively high humidity levels. Use a dehumidifier to maintain appropriate humidity levels, if necessary
- Clean windows, screens and hardware
- Check caulking and weather-stripping throughout your home
- Test carbon monoxide and smoke detectors

## **SEASONAL MAINTENANCE: SUMMER (JUNE, JULY, AUGUST)**

- Remove any plants and roots that touch or penetrate siding or masonry
- Service garage door opener and associated parts (do not attempt to adjust spring); if required
- Check exterior finishes, trim and wall penetration sealant for signs of deterioration; clean, replace or refinish as needed.
- Ensure sump pump is operating properly and discharging water away from the foundation
- Check basement pipes for condensation or dripping and, if necessary, take corrective action (i.e., reduce humidity and/or insulate pipes)
- Check basement floor drain to make sure the trap contains water; refill if necessary
- Inspect air conditioning unit to make sure drain pan under the cooling coil is clean and draining properly
- Change a/c filter, furnace filter and clean Heat
- Recovery Ventilator (HRV) filters, over the range hood filter (if applicable)
- Monitor home's humidity and condensation; avoid excessively high humidity levels. Use a dehumidifier to maintain appropriate humidity levels, if necessary
- Lubricate door hinges and tighten screws to ensure proper alignment and seal, if required
- Inspect and clean dryer duct if necessary
- Check guardrails and handrails
- Deep clean carpets
- Run water through plumbing fixtures that are not frequently used (i.e., spare bathroom tub, sink or toilet) to keep water in the trap
- Test carbon monoxide and smoke detectors

## **SEASONAL MAINTENANCE: FALL (SEPTEMBER, OCTOBER, NOVEMBER)**

- Check for soil settlement at the foundation; fill where necessary to maintain positive slope for water to drain away from the foundation
- Drain exterior water lines and hoses; store hoses and close interior valve to outdoor hose connection
- Check door and window weather-stripping; replace if necessary
- Shut off power and cover outside air-conditioning unit
- Inspect roof and associated exterior finishes and repair if necessary
- Check eavestroughs and downspouts for obstructions and ensure water flows away from your foundation
- Check self-closing doors between your garage and home for proper operation
- Check the tele-posts to make sure they are sufficiently
- supporting the beam. If you notice a gap, adjust as required.
- Ensure sump pump is operating properly and discharging water away from the foundation
- Change a/c filter, furnace filter and clean Heat Recovery
- Ventilator (HRV) filters, over the range hood filter (if applicable)
- Test your furnace to ensure the furnace is operating properly
- Check ductwork joints leading to and from your heating system make sure they are sealed.
- Change furnace filter and clean Heat Recovery Ventilator (HRV) filters, over the range hood filter (if applicable)
- Check basement floor drain to make sure the trap contains water; refill if necessary
- Drain sediment from hot water tank, if applicable
- Monitor home's humidity and condensation; avoid excessively high humidity levels. Use a dehumidifier to maintain appropriate humidity levels, if necessary
- Remove grilles from forced-air systems and vacuum inside the ducts (supply & return)
- Test carbon monoxide and smoke detectors

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